

WHAT WE CLAIM IS:

1. A dispensing device comprising:

an upper portion having a housing;

5 a center substance reservoir portion connected to said upper portion; and

a lower cap portion connected to the center portion and containing an applicator;

10 wherein an inner surface of said upper portion housing is capable of contacting a plunger, said plunger providing forward movement of a center toothed shaft, thereby driving a piston head capable of dispensing a substance from said applicator.

2. A dispensing device according to claim 1, wherein said upper

15 housing comprises a top segment and a bottom segment, said top segment tapering at an end to form a push button.

20 3. A dispensing device according to claim 2, wherein said upper housing further includes an accordion-pleated flexible plastic sleeve portion, said sleeve portion held in place by a collar defining an undercut area.

25 4. A dispensing device according to claim 2, said bottom segment having a surface including a plurality of evenly-spaced fingers forming grooves there between, said fingers forming an annulus about a central aperture such that said plunger and said center shaft extend there through.

5. A dispensing device according to claim 4, wherein said plunger is an elongate cylinder having a shoulder extending radially outward to form a rim.

6. A dispensing device according to claim 5, wherein an outer surface of said plunger has equally-spaced splines which matingly engage with said grooves of said upper housing.

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7. A dispensing device according to claim 6, wherein said upper housing slidably engages said plunger for a limited distance before contact there between whereby said plunger and said housing operate in unison as through a housing shoulder.

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8. A dispensing device according to claim 1, wherein said center-toothed shaft is an essentially circular, elongate shaft having an array of evenly-spaced teeth extending longitudinally along said shaft and a shaft projection at a lower end of said shaft.

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9. A dispensing device according to claim 8, wherein said teeth of said shaft are spaced apart from each other at a distance of about 0.45 mm.

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10. A dispensing device according to claim 8, wherein said shaft further includes a piston head:

11. A dispensing device according to claim 10, wherein said piston head comprises a cylindrical wall having front and back peripheral lips.

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12. A dispensing device according to claim 11, wherein a central recess of said piston head matingly receives said shaft projection such that said piston head moves in unison with said shaft.

13. A dispensing device according to claim 2, wherein said upper portion housing and said plunger are slidable in a forward longitudinal direction.

5 14. A dispensing device according to claim 1, wherein said upper portion housing, said center reservoir portion and said lower cap portion are made from one or more of polybutylene, polyester, polyethylene, ethylene-ethyl acrylate, ethylene-vinyl acetate, polypropylene, and the like.

10 15. A dispensing device according to claim 3, wherein said accordion pleated sleeve portion is made from one or more of silicone rubber, polypropylene, low density polyethylene, ultra-low density polyethylene, or polybutylene.

15 16. A dispensing device according to claim 1, wherein said applicator is a brush or a sponge.

20 17. A dispensing device according to claim 1, wherein said substance to be dispensed is a cosmetic substance, a personal care substance or a medicinal substance.

25 18. A dispensing device according to claim 5, wherein said substance to be dispensed is a cosmetic substance, a personal care substance or a medicinal substance.

19. A dispensing device according to claim 8, wherein said substance to be dispensed is a cosmetic substance, a personal care substance or a medicinal substance.

20. A dispensing device according to claim 10, wherein said substance to be dispensed is a cosmetic substance, a personal care substance or a medicinal substance.

5 21. A dispensing device according to claim 13, wherein said substance to be dispensed is a cosmetic substance, a personal care substance or a medicinal substance.

10 22. A dispensing device according to claim 1, wherein said device is operable without rotary action of said upper portion.

15 23. A dispensing device, comprising:
a slideable upper housing, an internal shaft, a substance reservoir, and an applicator;

20 said upper housing operatively connected to said shaft other than at the top portion thereof, said shaft connected to a piston head located in said substance reservoir so that upon pressing said slideable upper housing said piston is capable of supplying a substance through said applicator connected to said reservoir.

25 24. A dispensing device according to claim 23, wherein said upper housing has a push button portion located at the upper extremity thereof and wherein said push button portion upon depression thereof is not capable of contacting said shaft top portion.

25. A dispensing device according to claim 24, wherein said slideable upper housing is capable of being slidably moveable in a forward longitudinal direction with respect to said plunger a limited distance until contact there between where upon said housing and said plunger move in unison.

26. A dispensing device according to claim 25, wherein said dispensing device has an outer cylinder, wherein said upper housing has a flexible pleated sleeve contacting said outer cylinder and wherein said flexible sleeve is capable of expanding and retracting.

27. A dispensing device according to claim 26, wherein said shaft is capable of advancing in a forward longitudinal direction.

10 28. A dispensing device according to claim 27, wherein said piston head is slidably received in said substance reservoir.

29. A dispensing device according to claim 28, wherein said outer cylinder forms a portion of said substance reservoir.

15 30. A dispensing device according to claim 23, wherein said upper housing is made of plastic.

20 31. A dispensing device according to claim 29, wherein said upper housing is made of polypropylene.

32. A dispensing device according to claim 23, wherein said applicator has a tip portion and wherein said tip portion contains a plurality of orifices therein.

25 33. A dispensing device according to claim 26, wherein said applicator has a tip portion and wherein said tip portion contains a plurality of orifices therein.

34. A dispensing device according to claim 30, wherein said applicator has a tip portion and wherein said tip portion contains a plurality of orifices therein.

5 35. A dispensing device according to claim 23, wherein said substance to be dispensed is a cosmetic substance or a medicinal substance or a personal care substance.

10 36. A dispensing device according to claim 25, wherein said substance to be dispensed is a cosmetic substance or a medicinal substance or a personal care substance.

15 37. A dispensing device according to claim 27, wherein said substance to be dispensed is a cosmetic substance or a medicinal substance or a personal care substance.

38. A dispensing device according to claim 32, wherein said substance to be dispensed is a cosmetic substance or a medicinal substance or a personal care substance.